

TECHNICAL DATA
DATA SHEET 5381, REV. -

HERMETIC SILICON SCHOTTKY RECTIFIER

Very Low Forward Voltage Drop (Similar to 16SYQ060)

Applications:

- Switching Power Supply • Converters • Free-Wheeling Diodes • Polarity Protection Diode

Features:

- Very low forward voltage drop
- Low Power Loss, High Efficiency
- High Surge Capacity
- Guard Ring for Enhanced Durability and Long Term Reliability
- Guaranteed Reverse Avalanche Characteristics
- Part number for Ceramic seal – SHDC126513
- Add SS to part number for Space level screening – ex. SHDC126513SS

Maximum Ratings:

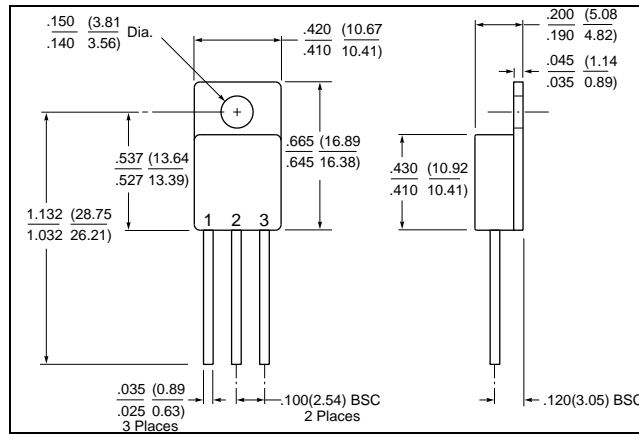
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	60	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form	16	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine wave	250	A
Max. Junction Temperature	T_J	-	-55 to +150	°C
Max. Storage Temperature	T_{stg}	-	-55 to +150	°C
Thermal Resistance	$R_{\theta JC}$	-	1.15	°C/W

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 16A, Pulse, $T_J = 25\text{ °C}$	0.60	V
	V_{F2}	@ 32A, Pulse, $T_J = 25\text{ °C}$	0.89	
	V_{F3}	@ 16A, Pulse, $T_J = 125\text{ °C}$	0.50	
	V_{F4}	@ 32A, Pulse, $T_J = 125\text{ °C}$	0.85	
	V_{F5}	@ 16A, Pulse, $T_J = -55\text{ °C}$	0.72	
	V_{F6}	@ 32A, Pulse, $T_J = -55\text{ °C}$	1.02	
Max. Reverse Current	I_{R1}	@ $V_R = 60V$, Pulse, $T_J = 25\text{ °C}$	0.5	mA
	I_{R2}	@ $V_R = 60V$, Pulse, $T_J = 100\text{ °C}$	50	
	I_{R3}	@ $V_R = 60V$, Pulse, $T_J = 125\text{ °C}$	190	
Max. Junction Capacitance	C_T	@ $V_R = 5V$, $T_C = 25\text{ °C}$ $f_{SIG} = 1MHz$, $V_{SIG} = 50mV$ (p-p)	2100	pF

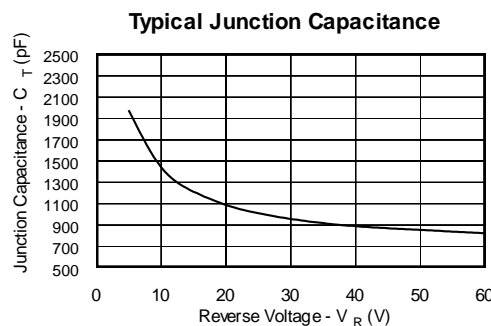
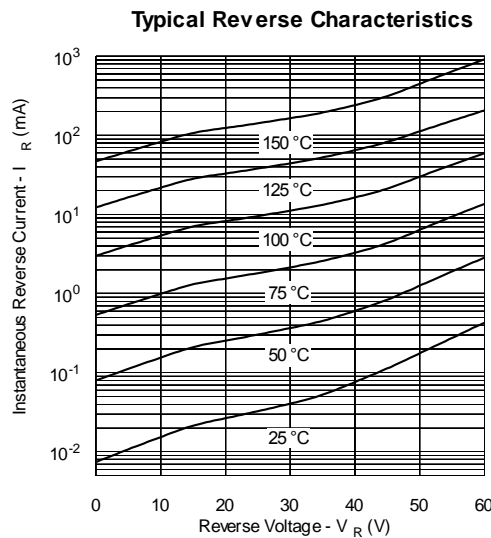
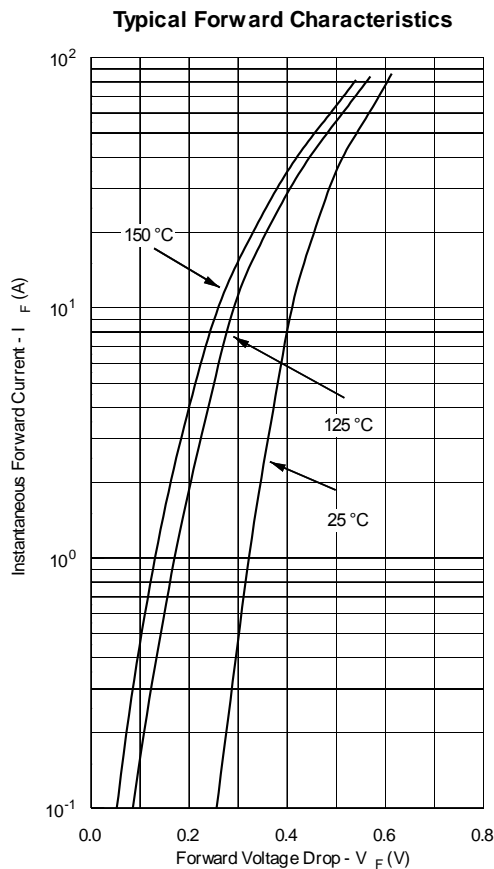
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Mechanical Dimensions: In Inches / mm



TO-257

DEVICE TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE



Note: The V_F graph is for the internal die only.

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DATA SHEET 5381, REV. -****DISCLAIMER:**

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